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BERMAN, BRIAN J				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/662,133

**Applicant(s)**

KHOSHBIN ET AL.

**Examiner**

BRIAN BERMAN

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-66 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-66 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-850)  
Paper No(s)/Mail Date 12/29/2003, 9/21/2004  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Status of the claims**

Claims 1-66 are now pending in the Instant Application.

### **Examiner's Note**

The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by Examiner.

### **Claim Objections**

Claims 2, 8, 23, 26, 38, 44, 57, and 60 are objected to because of the following informalities:

Claim 8 is a duplicate of claim 2. Applicant should delete one of these claims.

Claim 26 is a duplicate of claim 23. Applicant should delete one of these claims.

Claim 60 is a duplicate of claim 57. Applicant should delete one of these claims.

Claim 44 is a duplicate of claim 38. Applicant should delete one of these claims.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-66 are rejected under 35 U.S.C. 101 as drawn to a non-statutory subject matter.

A claimed invention falls within a judicial exception to statutory subject matter (i.e., is nothing more than an abstract idea, law of nature, or natural phenomenon), or whether it is a practical application of a judicial exception to statutory subject matter. A practical application of a 35 U.S.C. § 101 judicial exception is claimed if the claimed invention physically transforms an article or physical object to a different state or thing, or if the claimed invention otherwise produces a useful, concrete, and tangible result.

A useful result requires specific utility, substantial utility, and credible utility. A concrete result requires a predictable result and a repeatable result. A tangible result requires a real world result or abstract result. "Providing for" is not proper language for a method claim. No positive step is required. "Providing for" does not provide a concrete result. A concrete result is predictable and repeatable. "Providing for" is not predictable, since no positive step is required. "Providing for" does not provide a tangible result. A tangible result is a real world result or abstract result. "Providing for" is not a real world or abstract result, since no positive step is required. In other words, nothing is required to happen, so there is no tangible result. In order to claim a practical application of a 35

U.S.C. § 101 judicial exception, all three results (useful, concrete, and tangible result) must be satisfied. Since claims 1-66 are not concrete or tangible, all three results are not satisfied. Since the claims (or at least independent claims 1, 18, 33, and 51) do not provide a useful, concrete, **and** tangible result, there is no practical application of a 35 U.S.C. § 101 judicial exception.

There is no output per se. The claims do not produce any tangible result. The claims are not concrete. The claims are not useful, since there is no utility.

In claim 1, after “processing the second infrared signal”, the system does not output any data.

In claim 18, after “comparing the received coupon information with the recognized coupon information”, the system does not output any data.

In claim 33, after “decrypting the commercial information utilizing the random key”, the system does nothing with this commercial information.

In claim 51, after “comparing the received coupon information with the recognized coupon information”, the system does not output any data.

Claims 18, 19, 29-36, 51, 52, 55, and 63-66 are rejected under 35 U.S.C. 101 as drawn to a non-statutory subject matter. The claims (or at least independent claims 18 and 51) are related to mental processes, which are not patentable. Indeed, the claims (e.g. claim 18) recite a (mental) process, which is not tied to another statutory class or does not change or switch statutory class (such as a particular apparatus) or does not transform the underlying subject matter (such as an article or materials) to a different state or thing. See MPEP §2106.IV.B: *Determine Whether the Claimed Invention Falls Within An*

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*Enumerated Statutory Category.* See also the following U.S. Supreme Court cases: *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); and *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

In claim 7, “IrLAP” should apparently be --Infrared Link Access Protocol (IrLAP)--.

In claims 1-66, the language “providing for” is unclear, since no positive step is required. “Providing for” is not proper language for a method claim. The claim could contain language such as “receiving a first infrared signal ...” Applicant should delete the language “providing for”.

In claims 1 and 37, Examiner interprets the language “processing the second infrared signal” to mean --processing the **commercial information** in the second infrared signal-- as opposed to “processing the infrared signal” itself, i.e. receiving the signal.

Claims 1 (and its dependent claims 2-17), 22 (and its dependent claims 23-25), 37 (and its dependent claims 38-50), 56 (and its dependent claims 57-60) are rejected

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under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 22, 37, and 56, the language “without utilizing at least one infrared standard procedure” is unclear. As long as one type of infrared communication is not used, then this requirement is satisfied. There are many different types of infrared communication procedures, and it is implicit that only one (of many different possible) type of infrared communication procedure is required to establish a communication with a wireless device. When one type of infrared communication procedure is used, it is inherent that all other types of infrared communication procedures are not used.

The instant application contains no such clear definition for the phrase “infrared standard procedure”. Examiner does not find that “infrared standard procedure” is a term of art. In the instant case, the Examiner is required to give the term “infrared standard procedure” its broadest reasonable interpretation.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States

**Claims 1, 3, 4, 5, 6, 8, 9, 10, 16 are rejected under U.S.C. 102(b) as being anticipated by Malec, US Patent 5,287,266.**

Concerning claim 1, Malec discloses the invention as claimed, including:

A method for completing a commercial transaction utilizing a system having a point of sale terminal and a wireless device for transmitting commercial information to the point of sale terminal, the method comprising the steps of:

providing for receiving a first infrared signal from a wireless device for establishing communication with the wireless device (Malec, abstract, summary of invention, it is implicit that first infrared signal could contain location information in order to establish the communication between the wireless device and the point of sale terminal, in other words, when the wireless device established a wireless communication to redeem a coupon or effect redemption, the wireless device first establishes a communication at a point of sale terminal by generating a first contact signal. col 10, lines 9-10, the transmissions could be via infrared transmissions, col 19, lines 51-62, the infrared detector and emitter are physically oriented to receive and transmit transmissions to the radiator/sensor mounted on the cart while it is in the vicinity to the check-out station, col 2, lines 32-40)

without utilizing at least one infrared standard procedure; (Malec, col 10, lines 7-11, The transmissions can be via any kind of infrared transmission. As long as one type of infrared communication is not used, then this requirement is satisfied. There are many different types of infrared communications, and it is implicit that only one (of many different possible) type of infrared communication is required to establish a communication with a wireless device. When one type of infrared communication is used, it is inherent that all other types of infrared communications are not used. )

providing for receiving a second infrared signal comprising the commercial information; and, (col 24, lines 28-42, Once the communication is established (from the



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first signal), then the wireless device transmits a second signal to a point of sale terminal, which sends commercial information from the wireless device to the point of sale terminal to redeem the coupon. This information can contain the customer's demographic information, bank account balances (debit card), participation in a loyal-shoppers program, health records, col 2, lines 5-6, electronic coupons can be stored on the smart card, col 22, lines 29-42, shopping cart has a bar code scanner. Shopper can scan the UPC of a product and keep a running total of the monetary value of the products that he put in his cart. All of this commercial information is stored on the smart card. When the shopper reaches the point of sale, an infrared signal containing this commercial information about the products being purchased)

providing for processing the second infrared signal. (col 24, lines 28-40, at checkout, the infrared signal is processed by the point of sale terminal, col 23, line 64)

Concerning claim 3, Malec discloses the invention as claimed, including:

wherein the point of sale terminal comprises an optical interface unit, the optical interface unit receiving the first and second infrared signals.

(abstract, point of sale register contains an optical interface unit and receives the infrared signals of the smart card, col 24, lines 28-40, when the smart card is used at checkout, the infrared signal is processed by the point of sale terminal)

Concerning claim 4, Malec discloses the invention as claimed, including:

wherein the system further comprises an optical interface unit for communicating the commercial information to the point of sale terminal.  
(abstract, point of sale register contains an optical interface unit and receives the infrared signals of the smart card, col 24, lines 28-40, when the smart card is used at checkout, the infrared signal is processed by the point of sale terminal)

Concerning claim 5, Malec discloses the invention as claimed, including:

wherein the step of establishing communication comprises at least one of a discovery procedure and a connection procedure.  
(abstract, point of sale register contains an optical interface unit and receives the infrared signals of the smart card, col 24, lines 28-40, when the smart card is used at checkout, the infrared signal is processed by the point of sale terminal, it is implicit that there must be a discovery procedure and a connection procedure in order to successfully send and receive the stored data from the smart card to the point of sale register)

Concerning claim 6, Malec discloses the invention as claimed, including:

wherein the step of receiving the second infrared signal comprises an information exchange procedure. (col 24, lines 28-42, The smart card can contain the customer's demographic information, bank account balances (debit card), participation in a loyal-shoppers program, health records, col 2, lines 5-6, electronic coupons can be stored on the smart card, col 22, lines 29-42, shopping cart has a bar code scanner. Shopper can scan the UPC of a product and keep a running total of the monetary value of

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the products that he put in his cart. All of this commercial information is stored on the smart card. When the shopper reaches the point of sale, the smart card will send an infrared signal containing this commercial information about the products being purchased. The signal comprises an information exchange procedure, in order to send the information from the smart card to the point of sale register.)

Concerning claim 8, Malec further discloses

wherein the at least one infrared standard procedure comprises at least one of an address conflict resolution procedure and a sniff-open procedure. (See discussion of claim 2)

Concerning claim 9, Malec further discloses

the step of completing the commercial transaction. (It is implicit that a person completes the commercial transaction by purchasing the items at the point of sale, abstract.)

Concerning claim 10, Malec further discloses

wherein the commercial information comprises coupon information. (col 2, lines 5-6, distribute electronic coupons)

Concerning claim 16, Malec further discloses

wherein the commercial information comprises at least one of a credit card data and a debit card data. (col 24, line 35, bank account balances, debit card)

**Claims 33, 36, 37, 39, 40, 41, and 42 are rejected under U.S.C. 102(b) as being anticipated by O'Hagan, US Patent 5,821,513.**

Concerning claims 33, O'Hagan discloses the invention as claimed, including:

A method for completing a commercial transaction utilizing a system having a point of sale terminal and a wireless device for transmitting commercial information to the point of sale terminal through infrared transmission, the method comprising the steps of:

providing for receiving a random key from a key index; (O'Hagan, col 9, lines 25-37, for security the transmission of the customer ID number and the PIN number may be encrypted using standard public key encryption techniques

providing for identifying the random key; and,

providing for decrypting the commercial information utilizing the random key.

(O'Hagan, col 9, lines 57-60, the merchant may wish to use verification pages which include advertisements for promotional products when the bar code for particular products are read, col 12, lines 33-37, step 420 represents obtaining card authorization from the appropriate card issuing authority. After authorization is obtained, receipt data is transmitted to the customer terminal.)

Concerning claims 36, O'Hagan further discloses

wherein the process of transmitting commercial information to the point of sale terminal comprises a plurality of uniquely encrypted individual infrared transmissions.

(O'Hagan, col 4, lines 40-42)

Concerning claims 37, O'Hagan further discloses

providing for receiving a first infrared signal from a wireless device for establishing communication with the wireless device without utilizing at least one infrared standard procedure; (O'Hagan, col 4, lines 4, 62-66, col 8, lines 47-54, first infrared signal is from wireless device to infrared transmitters located throughout the store, this information or signal will then be sent or relayed to the point of sale terminal, it is implicit that first infrared signal could contain location information in order to establish the communication between the wireless device and the point of sale terminal)

providing for receiving a second infrared signal comprising the commercial information; and, (O'Hagan, col 12, lines 1-40, second signal is from wireless device to point of sale terminal, this is sent by an infrared signal, this commercial information can be sent from the wireless device (to a host computer) and then to the point of sale register, coupled to host via the network.)

providing for processing the second infrared signal. (O'Hagan, col 12, lines 1-40, this second infrared signal allows the person to pay for his items, since all of the items in the shopping cart are already stored in the wireless device, so the person can simply pay his bill without having to remove any items from the shopping cart, at checkout, the point of sale terminal processes the signal)

Concerning claims 39, O'Hagan further discloses

wherein the point of sale terminal comprises an optical interface unit, the optical interface unit receiving the first and second infrared signals. (O'Hagan, point of sale

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register receives all of the information from the wireless device, including the total of all the items to be purchased, col 12, lines 1-40)

Concerning claims 40, O'Hagan further discloses

wherein the system further comprises an optical interface unit for communicating the commercial information to the point of sale terminal. (O'Hagan, col 12, lines 30-32, point of sale terminal has an optical interface and communicates the total of the amount of the sale, and PIN number is required for a debit card)

Concerning claims 41, O'Hagan further discloses

wherein the step of establishing communication comprises at least one of a discovery procedure and a connection procedure.  
(O'Hagan, summary of invention, bar code reader is used to generate an electronic list of all items being purchased, this list is stored in the wireless device, it is implicit that there must be a discovery and connection procedure in order to establish an infrared connection between the device and the point of sale terminal)

Concerning claims 42, O'Hagan further discloses

wherein the step of receiving the second infrared signal comprises an information exchange procedure. (O'Hagan, col 12, lines 1-40)

Concerning claims 45, O'Hagan further discloses

completing the commercial transaction (O'Hagan, col 12, lines 34-40)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 2, 7, 11, 12, 13, 14, 17, 18, 19, 20-30, 32, 51-64, and 66** are rejected under 35

U.S.C. 103(a) as being unpatentable over Malec, US Patent 5,287,266.

Concerning claims 2, Malec does not disclose

wherein the at least one infrared standard procedure comprises at least one of an address conflict resolution procedure and a sniff-open procedure.

Malec shows that the transmitter is powered down to conserve battery energy.

This idle time allows the transmitter circuits and the receiver circuits on the shopping cart to stabilize.

Official Notice is taken that an infrared signal comprising a sniff-open procedure has been known as a basis for a device to conserve battery energy and power. Official Notice is also taken that an infrared signal comprising an address conflict resolution procedure has been known as a basis to connect with the right wireless device, when there are multiple devices located near each other.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using a sniff-open and conflict resolution procedure (Official Notice) thereby conserving battery power, extending the life of the wireless device, and ensuring that a connection is made with the right wireless device. The rationale of a sniff-open procedure is to connect a device, while saving and conserving power. This will help the devices last longer. For example, computers can be set to automatically shut down or hibernate after prolonged

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amounts of time of idle activity or nonuse. Any kind of infrared standard procedure can be used, such as an address conflict resolution procedure and a sniff-open procedure. The rationale of a address conflict resolution is to guarantee that the correct shopper's commercial information is sent to the point of sale, as opposed to a person's commercial information being sent to a stranger's wireless device. It would be a bad situation if a person's commercial and financial information (such as his bank account information) was accidentally sent to someone's wireless device, since this stranger would have access to his personal financial information. It is possible that the point of sale register could accidentally pick up a nearby person's wireless device signal. It is important that the point of sale register pick up the correct person's wireless device. This is why an address conflict resolution procedure will help guarantee that the correct person's information is sent and received by the point of sale register, especially when there are multiple wireless devices located near the point of sale terminal.

Concerning claims 7, Malec does not disclose

wherein the discovery procedure comprises an IrLAP Fast Connect Address discovery procedure.

Official Notice is taken that the IrLAP Fast Connect Address has been known as a basis to reduce the amount of time it takes to establish the connection between two devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using an IrLAP Fast Connect Address discovery procedure (Official Notice) thereby



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speeding up the transaction, at the point of sale register. The rationale is that saving time and making the process of sending and receiving signals more efficient will benefit both the store and the customer. This will help encourage more customers to use their wireless device to receive and redeem advertisements and coupons.

Concerning claim 11, Malec does not disclose

wherein the coupon information comprises stock keeping unit (SKU) data.

Official Notice is taken that coupons comprising SKU data has been known as a basis for stores to track which brands are more profitable to the store.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using SKU data (Official Notice) thereby linking UPCs from the vendor to the retail company. A single SKU can have many UPCs. A store use SKUs to see which company performs better with the same item. This will allow a store to figure out company items or brands will be more profitable to the store. This will generate more sales and revenue for the store, by only selling the most profitable brands of a specific item.

Concerning claim 12, Malec discloses the invention substantially as claimed, including:

providing for storing the coupon information as received coupon information;

(col 2, lines 5-6, coupon is stored electronically on shopping cart and on smart card)

Malec does not specifically disclose

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providing for comparing the received coupon information with recognized coupon information; and,

providing for creating accepted coupon information comprising the received coupon information that matches with the recognized coupon information.

Official Notice is taken that the coupon validation process has been known as a basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using ordinary coupon validation (Official Notice) thereby preventing fraudulent redemption of coupons. A coupon will be checked at the point of sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not yet expired. The accepted coupon information is the same as the valid coupons.

Concerning claim 13, Malec further discloses

providing for applying the accepted coupon information to the commercial transaction;

providing for creating remaining coupon information comprising the received coupon information minus the accepted coupon information; and,

providing for transmitting the remaining coupon information to the wireless device.

(col 2, lines 5-6, all of the electronic coupons are stored on the smart card, the commercial transaction will be reduced by the amount of all the coupons for items being purchased that qualify for the current purchase, such as the expiration date has not

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expired. All of the “remaining coupon information” or --electronic coupons-- that are not redeemed will remain on the “wireless device” or --smart card--. The electronic coupons that are successfully redeemed will be removed from the smart card, this is ordinary coupon validation. This will prevent the fraudulent redemption of previously redeemed coupons. This will prevent people from attempting to redeem (multiple) copies of that exact coupon (with a unique barcode). The remaining (updated) coupon information will be transmitted to the wireless device, so that the unused coupons can be redeemed in the future.)

Concerning claim 14, Malec does not specifically disclose

transmitting the accepted coupon information to the wireless device.

Official Notice is taken that stores keep track of past purchasing habits, including customer’s redemption of coupons has been known as a basis for stores to update their records.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of transmitting the coupon information to the wireless device (Official Notice) thereby storing a record on the wireless device. The point of sale register will transmit the accepted coupon information to the wireless device. This will help give better targeted advertisements to customers in the future, since the store can easily pull up a person’s past records due to the fact that all of this information is stored in the smart card.

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Concerning claim 17, Malec does not specifically disclose receiving a personal identification number corresponding to the commercial information

Official Notice is taken that receiving a personal identification number to access commercial information has been known as a basis to protect and secure a person's financial information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of providing a personal identification number (Official Notice) thereby protecting a person's sensitive financial records. For example, a person is given a four digit pin number to access a bank card when withdrawing money from an ATM. One can access a smart card's electronic coupons (when a person forgets to bring his smart card with him to the store), by providing a home phone number. This home phone number can be read as a personal identification number, since it accesses the commercial information stored on the card.

Concerning claim 18, Malec discloses the invention substantially as claimed, including

A method for completing a commercial transaction utilizing a system having a point of sale terminal and a wireless device for transmitting coupon information to the point of sale terminal, the method comprising the steps of:

providing for receiving an infrared signal comprising the coupon information;  
(Malec, col 2, lines 5-6, Once the communication is established (from the first signal),

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then the wireless device transmits a second signal to a point of sale terminal, which sends commercial information from the wireless device to the point of sale terminal to redeem the coupon, col 10, lines 9-10, the transmissions could be via infrared transmissions, col 19, lines 51-62, the infrared detector and emitter are physically oriented to receive and transmit transmissions to the radiator/sensor mounted on the cart while it is in the vicinity to the check-out station, col 24, lines 28-42, The smart card can contain the customer's demographic information, bank account balances (debit card), participation in a loyal-shoppers program, health records, col 2, lines 5-6, electronic coupons can be stored on the smart card, col 22, lines 29-42, All of this commercial information is stored on the smart card. When the shopper reaches the point of sale, the smart card will send an infrared signal containing this commercial information containing the electronic coupons to the point of sale register (col 24, lines 28-40, when the smart card is used at checkout, the infrared signal is processed by the point of sale terminal, col 23, line 64))

providing for storing the coupon information as received coupon information;  
and, (col 2, lines 5-6, coupon is stored electronically on shopping cart and on smart card)

Malec does not specifically disclose

providing for comparing the received coupon information with recognized  
coupon information.

Official Notice is taken that the coupon validation process has been known as a basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using ordinary coupon validation (Official Notice) thereby preventing fraudulent

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redemption of coupons. A coupon will be checked at the point of sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not yet expired. The accepted coupon information is the same as the valid coupons.

Concerning claim 19, Malec does not disclose providing for creating accepted coupon information comprising the received coupon information that matches with the recognized coupon information.

Official Notice is taken that the coupon validation process has been known as a basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using ordinary coupon validation (Official Notice) thereby preventing fraudulent redemption of coupons. A coupon will be checked at the point of sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not yet expired. The accepted coupon information is the same as the valid coupons.

Concerning claim 20, see discussion of claim 13.

Concerning claim 21, see discussion of claim 14.

Concerning claim 22, see discussion of claim 1, the infrared signal can contain coupon information, electronic coupons, col 2, lines 5-6.

Concerning claim 23, see discussion of claim 2.

Concerning claim 24, see discussion of claim 5.

Concerning claim 25, see discussion of claim 7.

Concerning claim 26, see discussion of claim 23.

Concerning claim 27, see discussion of claim 3.

Concerning claim 28, see discussion of claim 4, any commercial information, such as “coupon information” or --electronic coupons-- stored on smart card, can be sent to the point of sale terminal, col 24, line 28, col 2, lines 5-6, electronic coupons.

Concerning claim 29, see discussion of claim 6.

Concerning claim 30, see discussion of claim 11.

Concerning claim 32, see discussion of claim 17.

Concerning claim 51, Malec discloses the invention substantially as claimed, including

A method for completing a commercial transaction utilizing a system having a point of sale terminal and a wireless device for transmitting coupon information to the point of sale terminal, the method comprising the steps of:

providing for receiving an electromagnetic signal comprising the coupon information; (Malec, the transmissions could be via electromagnetic signals, col 2, line 33, col 2, lines 5-6, electronic coupon is sent to wireless device by electromagnetic signal, this data is sent to point of sale terminal register, the stored data are transmitted to a polling transceiver located at a point of sale register for later analysis, col 10, lines 7-11, “the SMT transmissions could be via low-frequency radio-frequency transmissions, microwave radio-frequency transmissions, infrared transmissions, or other FCC Part authorized transmissions”, the detector and emitter are physically oriented to receive and transmit transmissions to the radiator/sensor mounted on the cart while it is in the vicinity

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to the check-out station, col 24, lines 28-42, This information can contain the customer's demographic information, bank account balances (debit card), participation in a loyal-shoppers program, health records, col 2, lines 5-6, electronic coupons can be stored on the smart card, col 22, lines 29-42, All of this commercial information is stored on the smart card. When the shopper reaches the point of sale, an electromagnetic signal containing this commercial information containing the electronic coupons will be sent to the point of sale register, col 24, lines 28-40, the electromagnetic signal is processed by the point of sale terminal, col 23, line 64)

providing for storing the coupon information as received coupon information;  
and, (col 2, lines 5-6, coupon is stored electronically on shopping cart and on smart card)

Malec does not specifically disclose

providing for comparing the received coupon information with recognized coupon information.

Official Notice is taken that the coupon validation process has been known as a basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using ordinary coupon validation (Official Notice) thereby preventing fraudulent redemption of coupons. A coupon will be checked at the point of sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not yet expired. The accepted coupon information is the same as the valid coupons.

Concerning claim 52, see discussion of claim 19.



Concerning claim 53, see discussion of claim 20.

Concerning claim 54, see discussion of claim 21.

Concerning claim 55, Malec further discloses the electromagnetic signal is an infrared signal (col 10, lines 9-10, the transmissions could be via infrared transmissions, col 19, lines 51-62, the infrared detector and emitter are physically oriented to receive and transmit transmissions to the radiator/sensor mounted on the cart while it is in the vicinity to the check-out station, col 24, lines 28-42, All of this commercial information is stored on the smart card. When the shopper reaches the point of sale, the smart card will send an infrared signal containing this commercial information containing the electronic coupons to the point of sale register, col 24, lines 28-40, when the smart card is used at checkout, the infrared signal is processed by the point of sale terminal, col 23, line 64)

Concerning claim 56, see discussion of claim 22.

Concerning claim 57, see discussion of claim 23.

Concerning claim 58, see discussion of claim 24.

Concerning claim 59, see discussion of claim 25.

Concerning claim 60, see discussion of claim 57.

Concerning claim 61, see discussion of claim 27.

Concerning claim 62, see discussion of claim 28.

Concerning claim 63, see discussion of claim 29.

Concerning claim 64, see discussion of claim 30.

Concerning claim 66, see discussion of claim 32.

**Claims 15, 31, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malec, US Patent 5,287,266, in view of O'Hagan, US Patent 5,821,513.**

Concerning claims 15, Malec does not specifically disclose  
securing the commercial information, the method comprising the steps of:  
providing for receiving a random key index, providing for identifying an  
encryption key corresponding to the random key index; and providing for decrypting the  
commercial information utilizing the encryption key.

However, O'Hagan specifically discloses  
providing for receiving a random key index; (O'Hagan, col 9, lines 25-37, for  
security the transmission of the customer ID number and the PIN number may be  
encrypted using standard public key encryption techniques)

providing for identifying an encryption key corresponding to the random key  
index; and  
providing for decrypting the commercial information utilizing the encryption key.  
(O'Hagan, col 9, lines 57-60, the merchant may wish to use verification pages  
which include advertisements for promotional products when the bar code for  
particular products are read, col 12, lines 33-37, step 420 represents obtaining  
card authorization from the appropriate card issuing authority. After authorization  
is obtained, receipt data is transmitted to the customer terminal.)

Therefore, it would have been obvious to one of ordinary skill in the art at the  
time the invention was made to have modified the invention of *Malec* to utilize the  
encryption process in *O'Hagan* thereby protecting the security of the financial transaction  
information. The rationale is that there is an increased risk of fraudulent use of other

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people's credit cards, so it is important to protect personal, sensitive financial information, such as bank account numbers.

Concerning claim 31, see discussion of claim 15.

Concerning claim 65, see discussion of claim 31.

**Claims 34, 35, 38, 43, 44, 46, 47, 48, 49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Hagan, US Patent 5,821,513.**

Concerning claims 34, O'Hagan does not specifically disclose wherein the step of providing for identifying the random key comprises providing for identifying the random key from a second key index.

Official Notice is taken that the standard way of encryption utilizing each party having its own key index or code has been known as a basis to protect the security of confidential data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified O'Hagan with the commonly recognized practice of the identifying the random key from a second key index (Official Notice) thereby protecting the security of the confidential data. The rationale is that a second key index will provide security in the encryption process.

Concerning claims 35, O'Hagan does not specifically disclose wherein the second key index is identical to the (first) key index.

Official Notice is taken that the second key index being identical to the (first) key index has been known as a basis to protect the security of confidential data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified O'Hagan with the commonly recognized practice of the encryption/decryption index or codebook is the same for the two parties (Official Notice) thereby simplifying the encryption method. The fact that both parties will have the same codes will simplify the encryption method.

Concerning claim 38, O'Hagan does not specifically disclose wherein the at least one infrared standard procedure comprises at least one of an address conflict resolution procedure and a sniff-open procedure.

Official Notice is taken that an infrared signal comprising a sniff-open procedure has been known as a basis for a device to conserve battery energy and power. Official Notice is also taken that an infrared signal comprising an address conflict resolution procedure has been known as a basis to connect with the right wireless device, when there are multiple devices located near each other.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified O'Hagan with the commonly recognized practice of using a sniff-open and conflict resolution procedure (Official Notice) thereby conserving battery power, extending the life of the wireless device, and ensuring that a connection is made with the right wireless device. The rationale of a sniff-open procedure is to connect a device, while saving and conserving power. This will help the devices last longer. For example, computers can be set to automatically shut down or hibernate after

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prolonged amounts of time of idle activity or nonuse. Any kind of infrared standard procedure can be used, such as an address conflict resolution procedure and a sniff-open procedure. The rationale of a address conflict resolution is to guarantee that the correct shopper's commercial information is sent to the point of sale, as opposed to a person's commercial information being sent to a stranger's wireless device. It would be a bad situation if a person's commercial and financial information (such as his bank account information) was accidentally sent to someone's wireless device, since this stranger would have access to his personal financial information. It is possible that the point of sale register could accidentally pick up a nearby person's wireless device signal. It is important that the point of sale register pick up the correct person's wireless device. This is why an address conflict resolution procedure will help guarantee that the correct person's information is sent and received by the point of sale register, especially when there are multiple wireless devices located near the point of sale terminal.

Concerning claims 43, O'Hagan does not disclose

wherein the discovery procedure comprises an IrLAP Fast Connect Address discovery procedure.

Official Notice is taken that the IrLAP Fast Connect Address has been known as a basis to reduce the amount of time it takes to establish the connection between two devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using an IrLAP Fast Connect Address discovery procedure (Official Notice) thereby

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speeding up the transaction, at the point of sale register. The rationale is that saving time and making the process of sending and receiving signals more efficient will benefit both the store and the customer. This will help encourage more customers to use their wireless device to receive and redeem advertisements and coupons.

Concerning claim 44, see discussion of claim 38.

Concerning claim 46, O'Hagan further discloses

wherein the commercial information comprises coupon information.

(O'Hagan, O'Hagan teaches a coupon can be printed, Fig. 12, element 232, to print an available coupon indicate here, col 11, lines 27-29, terminal transmits link request to the host or a particular HTML page associated with a product coupon, the coupon information can be sent from the wireless device to the point of sale register to print the coupon at the point of sale)

Concerning claim 47, Malec does not disclose

wherein the coupon information comprises stock keeping unit (SKU) data.

Official Notice is taken that coupons comprising SKU data has been known as a basis for stores to track which brands are more profitable to the store.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Malec with the commonly recognized practice of using SKU data (Official Notice) thereby linking UPCs from the vendor to the retail company. A single SKU can have many UPCs. A store use SKUs to see which company

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performs better with the same item. This will allow a store to figure out company items or brands will be more profitable to the store. This will generate more sales and revenue for the store, by only selling the most profitable brands of a specific item.

Concerning claim 48, O'Hagan does not specifically disclose  
providing for storing the coupon information as received coupon information;  
(ordinary coupon validation)

providing for comparing the received coupon information with recognized  
coupon information; and, (ordinary coupon validation)

providing for creating accepted coupon information comprising the received  
coupon information that matches with the recognized coupon information. (ordinary  
coupon validation)

Official Notice is taken that the coupon validation process has been known as a  
basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the  
time of the invention to have modified the combination of O'Hagan with the commonly  
recognized practice of using ordinary coupon validation (Official Notice) thereby  
preventing fraudulent redemption of coupons. A coupon will be checked at the point of  
sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not  
yet expired. The accepted coupon information is the same as the valid coupons.

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Concerning claim 49, O'Hagan does not specifically disclose  
providing for applying the accepted coupon information to the commercial  
transaction; (ordinary coupon validation)

providing for creating remaining coupon information comprising the received  
coupon information minus the accepted coupon information; and, (ordinary coupon  
validation)

providing for transmitting the remaining coupon information to the wireless  
device. (ordinary coupon validation)

Official Notice is taken that the coupon validation process has been known as a  
basis to authenticate coupons.

Therefore, it would have been obvious to one of ordinary skill in the art at the  
time of the invention to have modified the combination of O'Hagan with the commonly  
recognized practice of using ordinary coupon validation (Official Notice) thereby  
preventing fraudulent redemption of coupons. A coupon will be checked at the point of  
sale with the clearinghouse, to make sure that the coupon is valid, authentic, and has not  
yet expired. The accepted coupon information is the same as the valid coupons. The  
reason that the updated remaining coupon information is sent to the wireless device is so  
that once a coupon is successfully redeemed, this coupon will be deleted from the  
wireless device. This will prevent the fraudulent redemption of previously redeemed  
coupons. This will prevent people from attempting to redeem (multiple) copies of that  
exact coupon (with a unique barcode). The remaining (updated) coupon information will  
be transmitted to the wireless device, so that the unused coupons can be redeemed in the  
future.



Concerning claim 50, O'Hagan does not specifically disclose transmitting the accepted coupon information to the wireless device.

Official Notice is taken that stores keep track of past purchasing habits, including customer's redemption of coupons has been known as a basis for stores to update their records.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified O'Hagan with the commonly recognized practice of transmitting the coupon information to the wireless device (Official Notice) thereby storing a record on the wireless device. The point of sale register will transmit the accepted coupon information to the wireless device. This will help give better targeted advertisements to customers in the future, since the store can easily pull up a person's past records due to the fact that all of this information is stored in the wireless device.

### ***Conclusion***

Although the following references were not used in the Office Action, they were highly considered by the Examiner. Applicants are further directed to consult these references. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent 6,282,656 to Wang teaches electronic transactions systems and methods, including public key cryptography.

US Patent 6,098,879 to Terranova teaches a fuel dispensing system providing customer preferences.

US Patent, 6,332,127 B1 to Bandera teaches providing advertising over the internet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Berman whose telephone number is (571) 270-3603. The examiner can normally be reached on Monday through Thursday 7:30 AM to 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Myhre can be reached on (571) 272-6722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian Berman/

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Examiner, Art Unit 3688

6/12/2008

/Jean Janvier/

Primary Examiner, Art Unit 3688